United States Department of the Interior
FISH AND WILDLIFE SERVICE
Ecological Services - LRGV SubOffice
Phone: (956) 787-3079 Fax: (956) 782-0641
Rt. 2 Box 202-A
Alamo, TX 78516
May 4, 2000

William J. Mundt, P.G.
R.W. Beck
1125 Seventeenth Street, Suite 1900
Denver, CO 80202-2615

Consultation No. 2-11-00-ALI-120

Dear Mr. Mundt:

This responds to your letter received April 21, 2000, regarding the effects of the proposed new electric transmission lines on species Federally-listed or proposed for listing as threatened or endangered occurring in Cameron County, Texas. In addition, your project was evaluated with respect to wetlands and other important fish and wildlife resources.

It is our understanding that the Brownsville Public Utilities Board (BPUB) will construct a new transmission line from the BPUB Silas Ray Power Plant into Mexico. The preferred route along the U.S. side of the project is entirely within BPUB"s power plant property, which extends to the Rio Grande River. The total length of the transmission line will be approximately 3,000 linear feet from the Silas Ray Power Plant substation to the Rio Grande River.

A right-of-way of 50 feet wide will be required for the project. The proposed line will be a double circuit with six 954 MCM phase conductors and two shield wires on wood pole structures. A total of nine structure locations, typically 300 to 400 feet apart, will be used for the U.S. portion of the project. A typical structure location consists of two or three wood poles, 15.5 feet apart for small and intermediate angle turns and 17 feet apart for large angle turns. The height of the top of the structures will average 70 feet above ground level. The line will be insulated for 138 kVbut initially energized at 69 kV from the power plant switchyard. Initially the line will be capable of transferring 100 Megawatts (MW) of power to Mexico. After a minor expansion of the switchyard the line will be able to carry 200 MW and, if/when the line is energized at 138 kV, it will be able to carry 400 MW.

On April 27th, 2000, Ernesto Reyes (Fish & Wildlife Biologist) of my staff, conducted a site visit and met with Albert Gomez Jr. (PUB Environmental Manager), and Sergio Guerrero (PUB Electrical Engineer Coordinator). Trees at three structure locations will be removed (the City of Brownsville will relocate trees where practical. Clearing at the three locations will consist of the minimum need to allow working within a 20-foot square area. There is a dense strip of native trees and vegetation that will be impacted. There are large mature trees which include Texas ebony, hackberry, mesquite, sabal palm, anacuita, and other species of trees.

With regard to wetlands, the potential for powerline collisions and/or electrocutions by birds often increase near wetlands or other bodies of water; therefore, the Service recommends that these areas should be marked with appropriate visual marking devices. Specifically, the conductors and static lines should be marked with optic yellow aviation balls. These marking devices should be approximately 9" in diameter on the static wire and 24" in diameter on the conductors. The balls should possess a black vertical stripe to increase effectiveness. The aviation balls should be situated on conductor and static wires in an alternating fashion. These aviation balls should be installed at 240 foot intervals on each conductor and 160 foot intervals on each static wire.

In addition, birds of prey (eagles, hawks, owls, etc) frequently use powerlines and support structures for perching and nesting. Raptors can be electrocuted while using powerlines, thus contributing to the cumulative mortality factors effecting these biologically important and environmentally sensitive species. Electric distribution lines carrying voltage between 12kV to 69kV present the greatest threat of electrocution, particularly in areas supporting high concentrations and diversity of raptors (e.g. southwest region of the United States). Standard techniques have been developed to prevent raptor electrocutions at electric distribution lines. The latest guidance is included in the publication:

Suggested Practices for Raptor Protection on Powerlines - State of the Art in 1981/ Raptor Research. Report No. 4, Raptor Research Foundation, Inc., Department Veterinary Biology, University of Minnesota, St. Paul, MN 55108.

As the Federal agency responsible for the protection of migratory birds (including birds of prey), the Service recommends that all new or modified electric distribution lines be designed and constructed to prevent the electrocution of raptors, using the above referenced techniques. Proper design includes adequate separation of energized hardware or insulation of wires where sufficient separation cannot be attained. The use of grounded steel cross-arm braces should be avoided. These measures should be implemented on each line and pole associated with new or converted lines. Failure to implement these measures could subject companies to civil or criminal liability under the Migratory Bird Treaty Act, ESA, and Bald Eagle Protection Act.

Regarding other important fish and wildlife resources, please keep in mind that many bird species protected under the Migratory Bird Treaty Act may nest in any area containing trees or other suitable habitat. As a Federal agency responsible for the protection of migratory birds, the Service recommends vegetation disturbances potentially associated with these activities to avoid the general nesting period of March through August or that areas proposed for disturbances be surveyed first for nesting birds, in order to avoid the inadvertent destruction of nests, eggs, etc.

It appears that Federally-listed species are not likely to be adversely affected by the proposed activities. Regarding wetlands and other important fish and wildlife resources, it appears that impacts to these resources will be minimal. If project plans change, portions were not reviewed, or differ from the above understanding, please notify us.

The Service appreciate the opportunity to review your project. If you have any questions or if we can be of further assistance, please contact Ernesto Reyes at the address on this letterhead, telephone extension 125.

Sincerely,

Thomas D. Serota

Thomas D. Serota
Field Supervisor

cc:
U.S. Fish and Wildlife Service Field Office, Corpus Christi, TX (ES)
Albert Gomez Jr., PUB Environmental Manager, Brownsville, TX